# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

## **PRODUCT EVALUATION**

**RV-79** 

Effective August 1, 2013

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code** (**IRC**) and the **International Building Code** (**IBC**). This product shall be subject to reevaluation **August 2017**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

The TurbineAire Series (WTI-12, WTI-14, WTE-12, WTE-14, TI-12, TI-14, TE-12, TE-14, ATI-12, ATI-14, ATE-12, and ATE-14) and the AirHawk Series (TIBG-12, TIBG-14, TOBG-12, TOBG-14, TIB-12, TIB-14, TOB-12, TOB-14) turbine roof ventilators manufactured by:

Air Vent, Inc. 4117 Pinnacle Point Drive Suite 400 Dallas, Texas 75211 Telephone: (214) 589-7219

will be acceptable in designated catastrophe zones along the Texas Gulf Coast when installed in accordance to manufacturer's installation instructions and this product evaluation.

### PRODUCT DESCRIPTION

The AirHawk series turbine roof ventilators are manufactured of aluminum components with ball bearings and a plastic support structure to fasten the head to the adjustable collar. The roof turbines may be manufactured with galvanized steel components, which get the 'G' designation in the model number. The TurbineAire series are manufactured of either aluminum components (ATI/ATE) or galvanized steel (WTI/WTE) components and utilize a galvanized steel support structure to fasten the head to the adjustable collar. This evaluation report includes the following turbine roof ventilator products:

Model Number	Series	
WTI-12, WTI-14, WTE-12, WTE-14	TurbineAire Series	
TI-12, TI-14, TE-12, TE-14	TurbineAire Series	
ATI-12, ATI-14, ATE-12, ATE-14	TurbineAire Series	
TIB-12, TIB-14, TOB-12, TOB-14	AirHawk Series	
TIBG-12, TIBG-14, TOBG-12, TOBG-14	AirHawk Series	

#### **Product Dimensions:**

Model Number	Base	Height
TI-12, ATI-12, WTI-12, TE-12, ATE-12, WTE-12	18.0" x 18.0"	20.5"
TI-14, ATI-14, WTI-14, TE-14, ATE-14, WTE-14	20.0" x 20.0"	19.8"
TIB-12, TIBG-12	20.0" x 20.0"	17.0"
TIB-14, TIBG-14	20.0" x 20.0"	19.5"
TOB-12, TOBG-12	20.0" x 20.0"	17.5"
TOB-14, TOBG-14	20.0" x 20.0"	20.0"

#### **LIMITATIONS**

#### **Design Pressure:**

- 170 psf (WTI-12, WTI-14, WTE-12, WTE-14, TI-12, TI-14, TE-12, TE-14)
- 170 psf (ATI-12, ATI-14, ATE-12, ATE-14)
- 170 psf (TIB-12, TOB-12, TIBG-12, TOBG-12)
- 160 psf (TIB-14, TOB-14, TIBG-14, TOBG-14)

**Roof Slope:** The turbine roof ventilators shall be installed on roofs with a minimum slope of 3:12 and a maximum slope of 12:12.

#### **INSTALLATION INSTRUCTIONS**

#### **General Installation Instructions:**

All requirements specified in the International Residential Code (IRC) and the International Building Code (IBC) must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

**Deck:** The roof deck shall consist of wood structural panels with a minimum nominal thickness of  $\frac{3}{8}$  inch.

#### Attachment of Roof Vent to Roof Deck:

**TIB-12, TIB-14, TOB-12, TOB-14, TIBG-12, TIBG-14, TOBG-12, TOBG-14:** The base of the vent shall be attached to the deck with minimum 1  $\frac{1}{4}$ " long, 12 gauge, smooth shank roofing nails. The fasteners shall be located 1 inch in on all eight corners of the vent base. The fasteners shall be long enough to penetrate into and through the roof deck.

WTI-12, WTI-14, WTE-12, WTE-14, TI-12, TI-14, TE-12, TE-14, ATI-12, ATI-14, ATE-12, and ATE-14: The base of the vent shall be attached to the deck with minimum  $1\frac{1}{4}$ " long, 12 gauge, smooth shank roofing nails. The fasteners shall be located 1 inch in on all eight corners of the vent base. The fasteners shall be long enough to penetrate into and through the roof deck.

**Note:** The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.